

# Work Order ID 103845

\*103845\*

Page 1

Tuesday, July 02, 2013 3:14:43 PM

Item ID: D3672-1 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Phenolic Washer  
 Start Date: 7/2/2013 Start Qty: 500.00 \*500\* Cust Item ID:  
 Required Date: 7/5/2013 Req'd Qty: 500.00 \*500\* Customer:  
 Reference:

Approvals: Process Plan: CL Date: 13/07/02 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3672	Rev C
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100	PURCHASING	0.00
*100*	Memo	0.00
Purchasing	Issue P/O: <u>20350</u>	
Purchasing	Purchase Part Number: MM .437 OD X .210 ID X.031 +/-002	
	Supplier: HASKINS INDUSTRIAL	
	Certificate of conformity is required	

CL 13/07/02 500

110	Receive & Inspect for Damage & Mat'l Certs	0.00
*110*	Memo	0.00
Packaging	Ensure certificate of conformity is attached	
Packaging		

13/7/3 500

120	QC6- Inspect dimensions to drawing	0.00
*120*	Memo	0.00
QC		
Quality Control		

DAS  
16  
8-5 13/07/03

500

2015

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Water Jet <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

**FAULT CATEGORY**

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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**Work Order ID 103845****\*103845\***

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Tuesday, July 02, 2013 3:14:43 PM

Item ID: D3672-1

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Phenolic Washer

Start Date: 7/2/2013 Start Qty: 500.00

**\*500\***

Cust Item ID:

Required Date: 7/5/2013 Req'd Qty: 500.00

**\*500\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>5T062</u>	0.00							
<b>*130*</b>									
Packaging	Memo	0.00				500X			13-07-03
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

ME

13-7-03

# Picklist Print

Tuesday, July 02, 2013 3:14:43 PM

Page 1

Work Order ID: 103845

Parent Item: D3672-1

Parent Item Name: Phenolic Washer

Start Date: 7/2/2013

Required Date: 7/5/2013

Start Qty: 500.00

Required Qty: 500.00

Comments: IPP Rev:A New Issue 07-09-09 JLM Verified By:EC  
IPP Rev:B ECN 1056 07-11-13 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3672-1P WASHER		Purchased	No			110	Each	0.0000	1	500		7/3/13	(500)

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

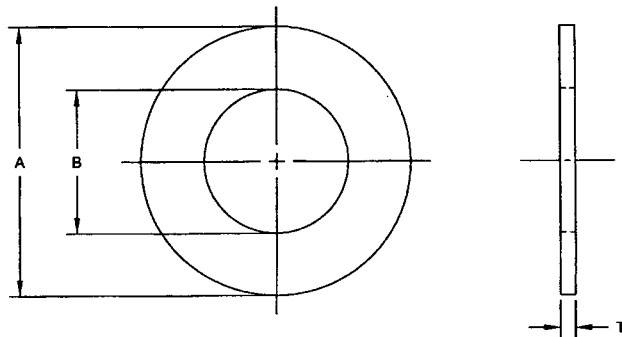
Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

# SPECIFICATION CONTROL DRAWING



## D3672-X PHENOLIC WASHER

Dart P/N	A (IN)	B (IN)	T (IN)	SUPPLIER P/N	REPLACES
D3672-1	0.437	0.210	0.031	MM .437OD x .210ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H3L
D3672-3	0.500	0.267	0.031	MM .500OD x .267ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H4L
D3672-5	0.562	0.326	0.062	MM .562OD x .326ID x .062 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5
D3672-7	0.562	0.328	0.031	MM .562OD x .328ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H5L
D3672-9	0.625	0.390	0.031	MM .625OD x .390ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H6L
D3672-11	0.750	0.453	0.031	MM .750OD x .453ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H7L
D3672-13	0.875	0.515	0.031	MM .875OD x .515ID x .031 +/- .002 PHENOLIC FLAT WASHER	NAS1515H8L



### NOTES:

- 1) MATERIAL: PHENOLIC. PURCHASE HASKINS INDUSTRIAL INC. P/N PER TABLE (IN QUANTITIES OF 1000)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

CL 13/07/02  
W10: 103845

RELEASED  
N 2009-12-04  
MS

C	REDRAW, ADD -13 (ZN A8-1), PAR 09-038	CP	09.11.04
B	ADD -51-71-9-11	DC	07.10.09
A	NEW ISSUE	DC	07.08.28
REV.	DESCRIPTION	BY	DATE
DESIGN	DC	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	gp		
CHECKED	JA	DRAWING NO.	REV. C
MFG. APPR.	JA	D3672	SHEET 1 OF 1
APPROVED	JA	TITLE	SCALE
DE APPR.	JA	PHENOLIC WASHER	NTS
DATE	09.11.04	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO20350**

Purchase Order Date 6/26/2013

PO Print Date 6/26/2013

Page Number 1 of 4

**Order From :**

VC-HAS001

**Ship To :** DART AEROSPACE LTD

HASKINS INDUSTRIAL  
5-52 ANTARES DRIVE  
NEPEAN, ON K2E 7Z1  
CA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**Contact Name**

**Vendor Phone** 613 723 8800

**Ship To Contact**

**Ship To Phone**

**Ship Via:** Dicom

**Ship Acct:**

**Buyer**

**Customer POID**

**Customer Tax #**

**Terms**

**Currency**

**FOB**

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

**FAV**  
6/26/2013

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable CD Promise Date	Req Qty/ Unit of Measure	List Price	Disc %	Discounted Unit Price	Extended Price
1	D3672-1P AS PER DWG D3672 REV. C B103641	WASHER	7/2/2013 Yes 7/2/2013	500.00 Each				\$161.45
Line Total:								\$161.45
2	71500-30	116-240 #3 CENTER DRILL	7/2/2013 Yes 7/2/2013	8.00 Each				\$36.00
Line Total:								\$36.00
Deliver To: CNC								
3	71500-30	VNMG 332 KC935 INSERT	7/2/2013 Yes 7/2/2013	20.00 Each				\$307.40

Note:

6/26/2013

HASKINS INDUSTRIAL INC.  
5-52 ANTARES DRIVE

\*\* PACKING SLIP \*\*

Order # 1249891.00

Order Date 06/27/13

NEPEAN, ONTARIO K2E 7Z1  
TEL (613)723-8800 FAX (613)723-8806

Page 1 of 1

Sold To: DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY  
ON  
K6A 1K7

Ship To: DART AEROSPACE LTD.  
1270 ABERDEEN STREET  
HAWKESBURY  
ON  
K6A 1K7

Cust #	Cust Phone #	Warehouse	F.O.B.	Taken By		
05168	20350	OTTAWA	DEST	Sylvie Demeule -		
Cust #	Customer P/O #	Required	Orig Order	Slsm	Ship Via	Terms
05168	20350	06/28/13	1249891.00	PL	DICOM	NET 30
Ln#	Bin #	Order UM	Ship	B/O Product	Description	
1	CAB810	500 EA	500	MMS-D3672-1	.437 X .210 X .031 +/- .002 WASHER, PHEN	
2	*	8 EA	0	8 SO1X1	116240 #3 CENTER	DRILL
3		20 EA	0	20 KEO1X1 1158760	VNMG332 KC935	INSERT
4		20 EA	0	20 KEO1X1 1158759	VNMG331 KC935	INSERT
5		20 EA	0	20 KEO1X1 1785734	DNGP432 KC5410	INSERT
6		20 EA	0	20 KEO1X1 3401380	DNMG432MP KC9240NEW	INSERT
7		2 EA	0	2 KEO1X1 3637016	HPHV750S4150R120	KC633M CARB E-MILI
8		20 EA	0	20 KEO1X1 1158624	CNMG432K KC935	INSERT
9		20 EA	0	20 KEO1X1 2982154	A2040N00CF00 KC5025	INSERT

PLEASE NOTE:

1. NO RETURNS WITHOUT PRIOR AUTHORIZATION
  2. ALL SHORTAGE CLAIMS MUST BE WITHIN 10 DAYS
  3. BO CODE: BO = QTY NOT SHIPPED IS BACK-ORDERED
- CL= QTY NOT SHIPPED WAS CANCELLED  
SC= ITEM CONSIDERED COMPLETE - NO B/O CREATED

FILL

PACK

DATE

Printed on 2013-06-27 at 10:02

6 187/13